



Policy & Planning Department, Regulation & Enforcement Division, Telephone: 604-432-6200 Fax: 604-436-6707

## PERMIT GVA1009

Pursuant to  
Greater Vancouver Regional District Air Quality Management Bylaw No. 1082, 2008  
and BC Environmental Management Act

**Ebco Metal Finishing LP.**

located at  
**15200 Knox Way, Richmond BC V6V 3A6**

is authorized to discharge air contaminants to the air from a  
**HOT DIP GALVANIZING AND METAL FINISHING OPERATION**

located at the above address, subject to the requirements in this Permit.

Contravention of any of these requirements is a violation of the bylaw  
and may result in enforcement action.

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Date Issued: January 31, 2005

Date Amended:

**FEB 03 2009**

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**SECTION 1 – AUTHORIZED EMISSION SOURCES**

Authorization to discharge air contaminants from the authorized Emission Sources and Works listed below are subject to the specified terms and conditions.

Approximate locations of the emission sources are shown on the Site Plan in section 4.

**EMISSION SOURCE 01:** Galvanizing Dip Pan Enclosure discharging through baghouse exhaust.

MAXIMUM EMISSION FLOW RATE: 142 m<sup>3</sup>/min  
MAXIMUM ANNUAL OPERATING HOURS: 8760 hrs/yr

MAXIMUM EMISSION QUALITY:

1. 20 mg/m<sup>3</sup> Particulate Matter.
2. 7 mg/m<sup>3</sup> Zinc
3. 10% Opacity (based on minimum six minute average).
4. The maximum allowable emission concentration (EC) for each emitted chemical contaminant with a Threshold Limit (TLV) is such that the sum of the individual EC/TLV ratios for all emissions less than 10.
5. No odours beyond the plant boundary such that the District Director determines that pollution has occurred.

WORKS AND PROCEDURES:

Cartridge baghouse and related appurtenances together with good operating practices.

**EMISSION SOURCE 02:** Galvanizing kettle heater discharging through a stack.

MAXIMUM EMISSION FLOW RATE: 25 m<sup>3</sup>/min  
MAXIMUM ANNUAL OPERATING HOURS: 8760 hrs/yr  
MAXIMUM FIRING RATE: 4.378 GJ/hr

MAXIMUM EMISSION QUALITY:

1. 10% Opacity (based on a six minute average).

WORKS AND PROCEDURES:

Firing of the kettle heater with natural gas using good combustion practices and operating procedures.

**EMISSION SOURCE 03:** Natural gas fired boiler #1 discharging through a stack.

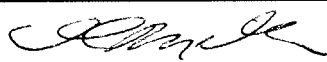
MAXIMUM EMISSION FLOW RATE: 30 m<sup>3</sup>/min  
MAXIMUM ANNUAL OPERATING HOURS: 8760 hrs/yr  
MAXIMUM FIRING RATE: 2.380 GJ/hr

MAXIMUM EMISSION QUALITY:

1. 10% Opacity (based on a six minute average).

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**WORKS AND PROCEDURES:**

Firing of the boiler with natural gas utilizing low NOx technology together with good combustion practices and operating procedures.

**EMISSION SOURCE 04:** Polishing and buffing operation discharging through a cyclone exhaust.

MAXIMUM EMISSION FLOW RATE: 305 m<sup>3</sup>/min  
MAXIMUM ANNUAL OPERATING HOURS: 4160 hrs/yr

**MAXIMUM EMISSION QUALITY:**

1. 50 mg/m<sup>3</sup> Particulate Matter.
2. 10% Opacity (based on a six minute average).

**WORKS AND PROCEDURES:**

Two cyclones and related appurtenances together with good operating practices.

**EMISSION SOURCE 05:** Natural gas fired boiler #2 discharging through a stack.

MAXIMUM EMISSION FLOW RATE: 30 m<sup>3</sup>/min  
MAXIMUM ANNUAL OPERATING HOURS: 8760 hrs/yr  
MAXIMUM FIRING RATE: 2.380 GJ/hr

**MAXIMUM EMISSION QUALITY:**

1. 10% Opacity (based on a six minute average).

**WORKS AND PROCEDURES:**

Firing of the boiler with natural gas utilizing low NOx technology together with good combustion practices and operating procedures.

**EMISSION SOURCE 06:** Steam heated sludge dryer discharging through a scrubber exhaust.

MAXIMUM EMISSION FLOW RATE: 12 m<sup>3</sup>/min  
MAXIMUM ANNUAL OPERATING HOURS: 7488 hrs/yr  
MAXIMUM FIRING RATE: 2.380 GJ/hr

**MAXIMUM EMISSION QUALITY:**

1. 20 mg/m<sup>3</sup> Particulate Matter.
2. 10% Opacity (based on minimum six minute average).
3. The maximum allowable emission concentration (EC) for each emitted chemical contaminant with a Threshold Limit (TLV) is such that the sum of the individual EC/TLV ratios for all emissions less than 10.
4. No odours beyond the plant boundary such that the District Director determines that pollution has occurred.

**WORKS AND PROCEDURES:**


Wet scrubber and related appurtenances together with good operating practices.

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**EMISSION SOURCE 07:** Lacquer dipping and storage room discharging through a vent.

MAXIMUM EMISSION FLOW RATE: 30 m<sup>3</sup>/min  
MAXIMUM ANNUAL OPERATING HOURS: 2496 hrs/yr

**MAXIMUM EMISSION QUALITY:**

1. The maximum allowable emission concentration (EC) for each emitted chemical contaminant with a Threshold Limit (TLV) is such that the sum of the individual EC/TLV ratios for all emissions less than 10.
2. No odours beyond the plant boundary such that the District Director determines that pollution has occurred.

**WORKS AND PROCEDURES:**

Filter pads and good operating practices.

**EMISSION SOURCE 08:** Nitric acid stripping tank discharging through a vent.

MAXIMUM EMISSION FLOW RATE: 115 m<sup>3</sup>/min  
MAXIMUM ANNUAL OPERATING HOURS: 2080 hrs/yr

**MAXIMUM EMISSION QUALITY:**

1. The maximum allowable emission concentration (EC) for each emitted chemical contaminant with a Threshold Limit (TLV) is such that the sum of the individual EC/TLV ratios for all emissions less than 10.

**WORKS AND PROCEDURES:**

Good operating practices.

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**SECTION 2 – GENERAL REQUIREMENTS AND CONDITIONS**

**A. AMENDMENTS**

The terms and conditions of this Permit may be amended, as authorized by applicable legislation. New and modified sources must receive authorization prior to start-up.

**B. POLLUTION**

Notwithstanding any conditions in this Permit, no person shall discharge or allow or cause the discharge of any air contaminant so as to cause pollution as defined in the Bylaw and Act.

**C. STANDARD CONDITIONS AND DEFINITIONS**

Unless otherwise specified, the following applies to this Permit:

1. Gaseous volumes are corrected to standard conditions of 20° Celsius & 101.325 kPa with zero percent moisture.
2. Contaminant concentrations from the combustion of specific fuel types are corrected to the following Oxygen content, unless specified otherwise:
  - 3% O<sub>2</sub> for natural gas and fuel oil;
  - 8% O<sub>2</sub> for wood fuel.
  - 15% O<sub>2</sub> for turbines
3. Each contaminant concentration limit in this Permit will be assessed for compliance based on a valid test using test methods approved by the District Director
4. Visual opacity measurements are made at the point of maximum density, nearest the discharge point and exclude the effect of condensed, uncombined water droplets. Visual opacity compliance determinations are based on a 6 minute average in accordance with the provincial "Source Testing Code for the Visual Measurement of The Opacity of Emissions from Stationary Sources".
5. If authorized in section 1 of this Permit, standby fuel use is restricted to a maximum of 350 hrs/yr and to those periods during which the primary authorized fuel is not available. Fuel oil sulphur content shall not exceed 15 mg/kg and emissions during fuel oil firing shall not exceed 10% Opacity.
6. Definitions in the Environmental Management Act and Air Quality Management Bylaw apply to terminology used in this Permit.
7. Threshold Limit Values (TLV) refer to the Time Weighted Average (TWA) exposure limits for substances specified in the American Conference of Governmental Industrial Hygienists Threshold Limit Values handbook, current on the latest date that this Permit issuance or amendment came into effect.
8. Sulphur Oxides (SOx) are expressed as Sulphur Dioxide.
9. Nitrogen Oxides (NOx) are expressed as Nitrogen Dioxide.

**D. HEATING, VENTILATION, AIR CONDITIONING AND INTERNAL COMBUSTION ENGINES**

Air contaminants discharged from any natural gas-fired heating, ventilation or air conditioning systems for buildings and any internal combustion engines located at the discharge site shall be maintained and operated in a manner prescribed by the manufacturer to ensure good combustion of the fuel with minimum discharge of air contaminants.

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**E. AUTHORIZED WORKS AND PROCEDURES**

Works and procedures, which this Permit authorizes to control the discharge of air contaminants, shall be employed during all operating periods of the related facilities. The Permit holder shall regularly inspect and maintain all such works in good repair.

The discharge criteria described in this Permit are applicable on the issued or amended date of this Permit unless specified otherwise. If a date different to the issued or amended date is specified, the existing control works and procedures must be maintained in good operating condition and operated in a manner to minimize emissions.

**F. BYPASSES**

The discharge of contaminants which have bypassed authorized control works during non-emergency conditions are prohibited unless approval has been obtained in writing from the District Director.

**G. EMERGENCY PROCEDURES**

In the event of an emergency that prevents compliance with a requirement(s) of this permit, that requirement(s) shall be suspended for such time as the emergency continues or until otherwise directed by the District Director, provided that:

1. Due diligence was exercised in relation to the process, operation or event that caused the emergency and that the emergency occurred notwithstanding this exercise of due diligence; and,
2. The District Director is notified at the first available opportunity of the emergency and of contingency actions invoked or planned to mitigate adverse impacts and restore compliance. Notification shall be made to the Metro Vancouver's 24-hour number: 604-436-6777; and,
3. Due diligence is exercised in shutting down related processes and/or taking action to restore compliance in the shortest possible time frame, unless specified otherwise in this permit or by written notice from the District Director.

Notwithstanding 1, 2 and 3 above, the District Director may specify contingency actions to be implemented to protect human health and the environment while authorized works and/or standard operating procedures are being restored.

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**SECTION 3 – REPORTING REQUIREMENTS**

**A. MONITORING REQUIREMENTS AND REPORTING**

Unless otherwise approved by the District Director prior to any sampling or analysis, all measurements shall be performed by an independent agency in accordance with Metro Vancouver Air Emissions Sampling Program Manual of Methods and Standard Operating Procedures and the BC Ministry of Environment Field Sampling Manual, as they may be amended from time to time. Any variance from these procedures must receive prior approval from the District Director.

A minimum of 3 days advance notice must be given prior to taking measurements required by this Monitoring and Sampling Program. Notification must be given to the Metro Vancouver, Regulation & Enforcement Division (phone 604-436-6777, Fax 604-436-6707, email [regulation&enforcement@metrovancover.org](mailto:regulation&enforcement@metrovancover.org)).

Unless otherwise specified, sampling shall be performed under operating conditions representative of the previous 90 calendar days of operation. All field data and calculations must be submitted with monitoring results and they shall be reported in the metric units which are used in this Permit. These submissions shall include process data relevant to the operation of the source of the emissions and the performance of the emission control works.

The Permit holder shall conduct the following monitoring and sampling and submit written reports of the results to the District Director by the dates specified below.

SOURCE	DUE DATE	FREQUENCY	REQUIREMENT	PARAMETER(S)	TEST METHOD
01	June 30, 2010	Every 3 years	Submit a written report detailing the measured discharge rate and concentration of specified parameters in the emissions.	Particulate Matter, Zinc	EPA methods 5 & 29.
04	June 30, 2010	Every 3 years	Submit a written report detailing the measured discharge rate and concentration of Particulate Matter in the emissions.	Particulate Matter	EPA methods 5

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**B. INFORMATION REPORTING REQUIREMENTS**

The Permit holder shall submit written reports containing the required information to the District Director by the dates specified below.

EMISSION SOURCE	DUE DATE	FREQUENCY	REQUIREMENT	REPORT TYPE
01	March 31, 2009	Annually	Written report indicating frequency and result of the inspection, maintenance and monitoring frequency of the baghouse. This report shall also include any actions taken or proposed to solve any problems detected.	Baghouse
Facility	March 31, 2009	Annually	Written report providing details of the types and amounts of fuel burned in the preceding calendar year.	Fuel Use
Facility	March 31, 2009	Annually	Written report providing details of the types and amounts of principle products produced and principal raw materials used in the preceding calendar year.	Materials & Products
Facility	March 31, 2009	Annually	Written report providing details of the types, amounts and end use of organic solvents and organic solvent-containing materials used in the preceding calendar year.	Solvent Use

**C. AMENDED OR ADDITIONAL REQUIREMENTS**

Based on the results of the monitoring program, including the stack sampling results or any other information, the District Director may:

1. Amend the monitoring and reporting requirement of any of the information required by this Permit including plans, programs and studies.
2. Require additional investigations, tests, surveys or studies.

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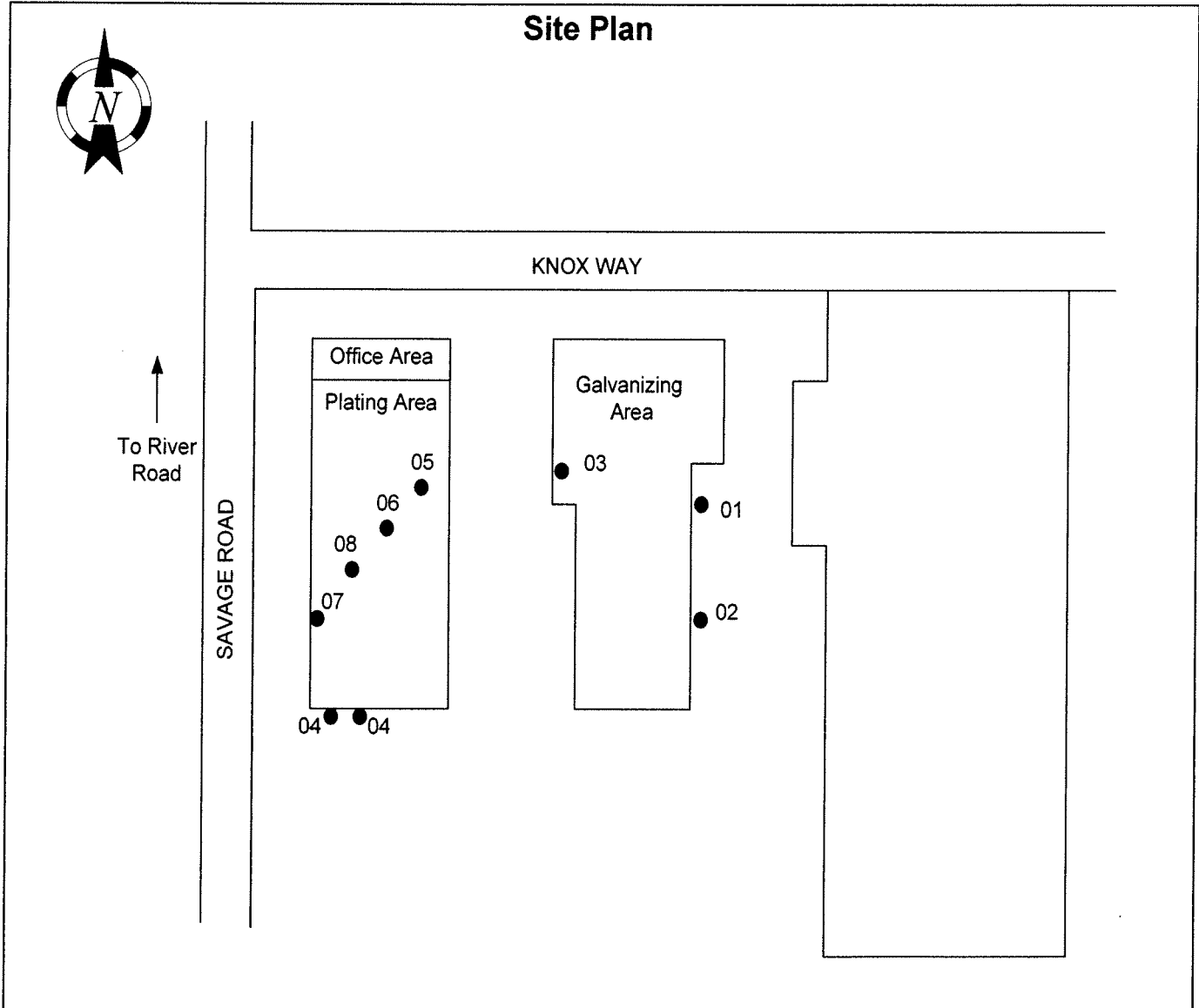


**SECTION 4 – SITE PLAN**

**LEGAL DESCRIPTION OF DISCHARGE SITE:**

The land from which the air contaminants discharged is described as: Lot 8, Section 15, Block 5 North, Range 5 West, New Westminster District, Plan LMP 47666

The following site plan is not to scale and the locations of the discharge points are approximate.



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